

CLAIMS

WE CLAIM:

1. A method of controlling an antenna signal combiner in a vehicle having multiple antenna elements, a navigational system and a receiver comprising the steps of:

Receiving signals from at least one transmitter;

Determining first position coordinates of said vehicle using said navigational system;

Determining second position coordinates of said at least one transmitter;

Combining signals from said multiple antenna elements to steer an antenna beam from said first position coordinates to said second position coordinates.

2. The method according to claim 1 wherein said second position coordinates are determined using Keplerian elements.

3. The method according to claim 1 wherein said first position coordinates are derived from a GPS receiver.

4. The method according to claim 1 wherein a steering angle is obtained in response to said first position coordinates and second position coordinates, wherein steering coefficients are determined by a coefficient generator based on said steering signal, and wherein said steering coefficients are applied to steer said antenna beam from said first position coordinates towards said second position coordinates.

5. The method according to claim 1 wherein said second position coordinates are derived from a manual input.

6. The method according to claim 1 wherein said second position coordinates are broadcast by said at least one transmitter.

7. The method according to claim 1 wherein said second position coordinates are derived using triangulation.

8. The method according to claim 1 wherein said first position coordinates are derived from a GPS receiver.

9. A broadcast receiver for a vehicle having multiple antenna elements for receiving broadcast signals comprising:

a vehicle localizer generating first position coordinates;
a broadcast transmitter localizer generating second position coordinates; and
an antenna signal combiner steering an effective antenna beam from said first position coordinates toward said second position coordinates.

10. The broadcast receiver according to claim 9 wherein said antenna signal combiner comprises:

an antenna steering angle generator for generating an antenna steering angle based on first position coordinates and said second position coordinates;
wherein steering coefficients are generated based on said steering angle by a coefficient generator;
wherein said steering coefficients are applied to said antenna signal combiner to steer an effective antenna beam from said first position coordinates toward said second position coordinates.

11. The broadcast receiver according to claim 9 wherein first position coordinates are derived from a vehicle localizer comprising a tire rotation monitor and a vehicle turn indicator.

12. The broadcast receiver according to claim 9 wherein said second position coordinates are derived from a broadcast transmitter localizer comprising a database having locations of predetermined broadcast transmitters.

13. The broadcast receiver according to claim 9 wherein said second position coordinates are derived from a manual input.

14. The broadcast receiver according to claim 9 wherein said second position coordinates are calculated using triangulation.

15. The broadcast receiver according to claim 9 wherein said first position coordinates are derived from a GPS receiver.